

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES UPGRADING THE EXISTING TRAFFIC SIGNAL HEADS TO LED AT THE INTERSECTION OF MD 91 (GAMBER ROAD) AND DEER PARK ROAD IN CARROLL COUNTY. THE EXISTING BLACK FACED SIGNAL HEADS WILL REMAIN AND BE UPGRADED TO LED SIGNAL HEAD MODULES. THE EXISTING YELLOW FACED SIGNAL HEADS WILL BE REPLACED WITH NEW BLACK FACED LED SIGNAL HEADS. VIDEO DETECTION CAMERAS WILL REPLACE ALL PRESENCE LOOP DETECTORS. NEW SHIELD ASSEMBLY SIGNS FOR MD 91 WILL BE INSTALLED ALONG DEER PARK ROAD. MD 91 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER, SETBACK LOOPS, AMPLIFIERS, AND ASSOCIATED HARNESSES SHALL REMAIN. VIDEO DETECTION WILL REPLACE ALL PRESENCE LOOP DETECTORS. THE SHA SIGNAL SHOP WILL INSTALL THE VIDEO INTERFACE EQUIPMENT IN THE EXISTING CONTROLLER.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: 301-624-8140

Mrs. Andrea Abend
Assistant District Engineer - Utility
Phone: 301-624-8115

Mr. Ray Johnson
Assistant District Engineer - Maintenance
Phone: 301-624-8105

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

The Power Company Representative is:
Baltimore Gas & Electric Company
7317 Parkway Drive South
Hanover, MD 21076
Phone: 410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

| ITEM NO | QUANTITY | DESCRIPTION |
|---------|----------|---|
| 9000 | 1 EA | VIDEO DETECTION INTERFACE EQUIPMENT: CAMERAS: 1-4 |
| 9571 | 55 SF | SHEET ALUMINUM SIGNS - GROUND MOUNT |
| | | 1 EA - ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 91, LEFT ARROW" (36 IN. X 75 IN.) |
| | | 1 EA - ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 91, LEFT ARROW" (36 IN. X 75 IN.) |
| | | 1 EA - ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 91, RIGHT ARROW" (24 IN. X 51 IN.) |
| | | 1 EA - ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 91, RIGHT ARROW" (24 IN. X 51 IN.) |

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

| ITEM NO | QUANTITY | DESCRIPTION |
|---------|----------|-------------|
|---------|----------|-------------|

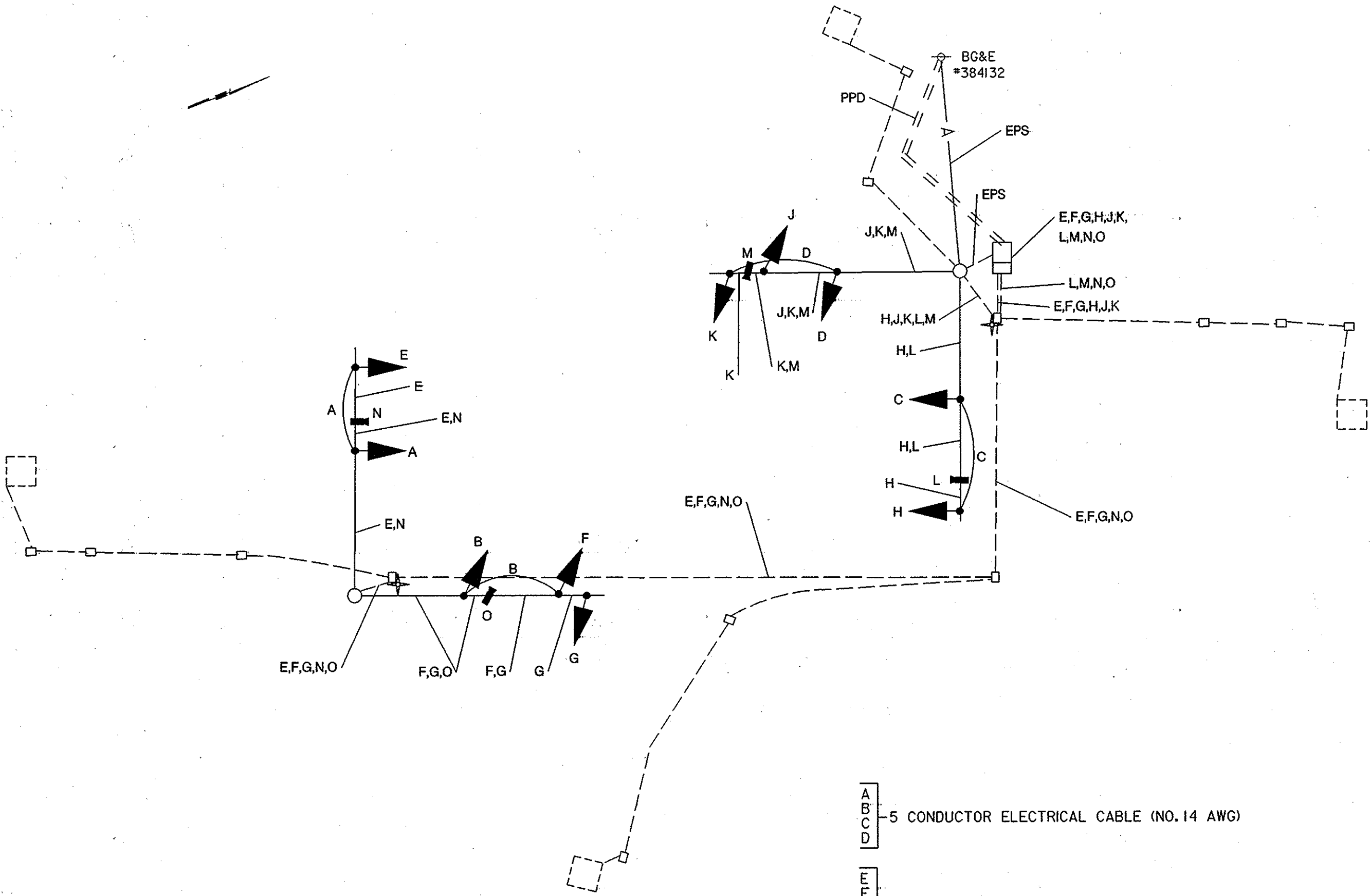
NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

| ITEM NO | QUANTITY | DESCRIPTION |
|---------|----------|--|
| 1001 | 1 EA | MAINTENANCE OF TRAFFIC (PER ASSIGNMENT) |
| 8002 | 12 EA | 12 INCH RED OR GREEN LED SIGNAL HEAD SECTION |
| 8003 | 6 EA | 12 INCH YELLOW LED SIGNAL HEAD SECTION |
| 8019 | 2 EA | CONTROL CABLE, 200 FOOT - VIDEO DETECTION CAMERA TO CONTROLLER |
| 8020 | 2 EA | CONTROL CABLE, 400 FOOT - VIDEO DETECTION CAMERA TO CONTROLLER |
| 8025 | 12 EA | LED SIGNAL HEAD MODULES (ANY SIZE) |
| 8028 | 1 EA | REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT) |
| 8031 | 140 LF | 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED |
| 8042 | 80 LF | WOOD SIGN SUPPORTS 4 INCH X 6 INCH |
| 8063 | 55 SF | INSTALL GROUND MOUNTED SIGN |
| 8065 | 4 EA | VIDEO DETECTION CAMERA |
| 8078 | 100 LF | ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG) |
| 8079 | 1000 LF | ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG) |

WIRING DIAGRAM



A
B
C
D

5 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)

E
F
G
H
J
K

7 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)

L
M

CONTROL CABLE, 200 FOOT - VIDEO DETECTION CAMERA TO CONTROLLER

N
O

CONTROL CABLE, 400 FOOT - VIDEO DETECTION CAMERA TO CONTROLLER

EPS

EXISTING POWER SOURCE

+

EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT.

PPD

PROPOSED TELEPHONE DROP TO BE INSTALLED BY OTHERS

PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|
| | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | |
| PHASE 2 & 6 | G | G | G | G | R | R | R | R | R | R | ← |
| PHASE 2 & 6 CHANGE | Y | Y | Y | Y | R | R | R | R | R | R | → |
| PHASE 4 & 8 | R | R | R | R | G | G | G | G | G | G | ↑ |
| PHASE 4 & 8 CHANGE | R | R | R | R | Y | Y | Y | Y | Y | Y | ↓ |
| FLASHING OPERATION | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | FL/R | FL/R | ↕ |

BY: THOMPSON



STV Incorporated

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UTILITY LEGEND

| | | |
|----|----|------------------|
| SD | SD | STORM DRAIN |
| G | G | GAS MAIN |
| W | W | WATER MAIN |
| S | S | SEWER MAIN |
| E | E | ELECTRIC CABLES |
| A | A | AERIAL CABLES |
| T | T | TELEPHONE CABLES |
| F | F | FIBER-OPTIC |



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 91 (GAMBER ROAD) AND DEER PARK ROAD

GENERAL INFORMATION

SCALE NONE DATE 5/20/06 CONTRACT NO. AT7825185

DESIGNED BY MCG COUNTY CARROLL
DRAWN BY MCG LOGMILE 06009101.46
CHECKED BY BAB T.I.M.S. NO. H019
F.A.P. NO. TOD NO.

DRAWING NO. TS-2614 B OF SHEET NO. 2 OF 2

TOD No.: AT782-31
SHA NO.: CL348A51/B51

PLOTTED: TUESDAY, APRIL 04, 2006 AT 08:48 AM
FILE: I:\PROJECTS\0312513\0312513_0013\DRAWINGS\TRA\PSG-P001.MD91.DGN